



## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

**[EPA-R01-OAR-2015-0351; FRL-9943-38-Region 1]**

#### **Air Plan Approval; Massachusetts; Decommissioning of Stage II Vapor Recovery Systems**

**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve a State Implementation Plan (SIP) revision submitted by the Commonwealth of Massachusetts Department of Environmental Protection. This revision includes regulatory amendments that allow gasoline dispensing facilities (GDFs) to decommission their Stage II vapor recovery systems as of January 2, 2015, and a demonstration that such removal is consistent with the Clean Air Act and EPA guidance. This revision also includes regulatory amendments that strengthen Massachusetts' requirements for Stage I vapor recovery systems at GDFs. The intended effect of this action is to propose approval of Massachusetts' revised vapor recovery regulations. This action is being taken under the Clean Air Act.

**DATES:** Written comments must be received on or before **[insert date 30 days after the date of publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R01-OAR-2015-0351 at <http://www.regulations.gov>, or via email to [arnold.anne@epa.gov](mailto:arnold.anne@epa.gov). For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted,

comments cannot be edited or removed from Regulations.gov. For either manner of submission, the EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the “For Further Information Contact” section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Ariel Garcia, Air Quality Planning Unit, U.S. Environmental Protection Agency, EPA New England Regional Office, 5 Post Office Square, Suite 100 (mail code: OEP05-2), Boston, MA 02109-3912, telephone number: (617) 918-1660, fax number: (617) 918-0660, email: [garcia.ariel@epa.gov](mailto:garcia.ariel@epa.gov).

**SUPPLEMENTARY INFORMATION:**

Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA.

Organization of this document. The following outline is provided to aid in locating information in this preamble.

I. Background and Purpose

## II. Summary of Massachusetts' SIP Revision

## III. EPA's Evaluation of Massachusetts' SIP Revision

## IV. Proposed Action

## V. Incorporation by Reference

## VI. Statutory and Executive Order Reviews

### **I. Background and Purpose**

On May 5, 2015, the Massachusetts Department of Environmental Protection submitted a revision to its State Implementation Plan (SIP). The SIP revision consists of Massachusetts' revised regulations 310 Code of Massachusetts Regulations (CMR) 7.00, *Air Pollution Control: Definitions* and 310 CMR 7.24, *Organic Material Storage and Distribution*. Specifically, in addition to the new and revised definitions in 310 CMR 7.00, the SIP revision consists of Massachusetts' revised regulation sections:

- 310 CMR 7.24(3), *Distribution of Motor Vehicle Fuel*;
- 310 CMR 7.24(4), *Motor Vehicle Fuel Tank Trucks*; and
- 310 CMR 7.24(6), *Dispensing of Motor Vehicle Fuel*.

These sections of Massachusetts' 310 CMR 7.24 have been revised to allow the decommissioning of Stage II vapor recovery systems and to strengthen Stage I vapor recovery requirements. The SIP submittal also includes a demonstration that removal of Stage II vapor recovery systems in Massachusetts is consistent with the Clean Air Act and EPA guidance.

Stage II and onboard refueling vapor recovery (ORVR) systems are two types of emission control systems that capture fuel vapors from vehicle gas tanks during refueling. Stage II vapor recovery systems are installed at gasoline dispensing facilities (GDFs) and capture the refueling

fuel vapors at the gasoline pump. The system carries the vapors back to the underground storage tank at the GDF to prevent the vapors from escaping to the atmosphere. ORVR systems are carbon canisters installed directly on automobiles to capture the fuel vapors evacuated from the gasoline tank before they reach the nozzle. The fuel vapors captured in the carbon canisters are then combusted in the engine when the automobile is in operation.

Stage II vapor recovery systems and vehicle ORVR systems were initially both required by the 1990 Amendments to the Clean Air Act (CAA). Section 182(b)(3) of the CAA requires moderate and above ozone nonattainment areas to implement Stage II vapor recovery programs. Also, under CAA section 184(b)(2), states in the Ozone Transport Region (OTR) are required to implement Stage II or comparable measures. CAA section 202(a)(6) required EPA to promulgate regulations for ORVR for light-duty vehicles (passenger cars). EPA adopted these requirements in 1994, at which point moderate ozone nonattainment areas were no longer subject to the CAA section 182(b)(3) Stage II vapor recovery requirements. ORVR equipment has been phased in for new passenger vehicles beginning with model year 1998, and starting with model year 2001 for light-duty trucks and most heavy-duty gasoline powered vehicles. ORVR equipment has been installed on nearly all new gasoline-powered light-duty vehicles, light-duty trucks, and heavy-duty vehicles since 2006.

During the phase-in of ORVR controls, Stage II has provided volatile organic compound (VOC) reductions in ozone nonattainment areas and certain attainment areas of the OTR. Congress recognized that ORVR systems and Stage II vapor recovery systems would eventually become largely redundant technologies, and provided authority to EPA to allow states to remove Stage II vapor recovery programs from their SIPs after EPA finds that ORVR is in “widespread use.” Effective May 16, 2012, the date the final rule was published in the **Federal Register** (see

77 FR 28772), EPA determined that ORVR systems are in widespread use nationwide for control of gasoline emissions during refueling of vehicles at GDFs. Currently, more than 85 percent of gasoline refueling nationwide occurs with ORVR-equipped vehicles. Thus, Stage II vapor recovery programs have become largely redundant control systems and Stage II vapor recovery systems achieve an ever declining emissions benefit as more ORVR-equipped vehicles continue to enter the on-road motor vehicle fleet.<sup>1</sup> In the May 16, 2012 rulemaking, EPA also exercised its authority under CAA section 202(a)(6) to waive certain federal statutory requirements for Stage II vapor recovery systems at GDFs. This decision exempts all new ozone nonattainment areas classified serious or above from the requirement to adopt Stage II vapor recovery programs. Finally, EPA's May 16, 2012 rulemaking also noted that any state currently implementing Stage II vapor recovery programs may submit SIP revisions that would allow for the phase-out of Stage II vapor recovery systems.

Stage I vapor recovery systems are systems that capture vapors displaced from storage tanks at GDFs during gasoline tank truck deliveries. When gasoline is delivered into an aboveground or underground storage tank, vapors that were taking up space in the storage tank are displaced by the gasoline entering the storage tank. The Stage I vapor recovery systems route these displaced vapors into the delivery truck's tank. Some vapors are vented when the storage tank exceeds a specified pressure threshold, however the Stage I vapor recovery systems greatly reduce the possibility of these displaced vapors being released into the atmosphere.

Stage I vapor recovery systems have been in place since the 1970s. EPA has issued the following guidance regarding Stage I systems: "Design Criteria for Stage I Vapor Control

---

<sup>1</sup> In areas where certain types of vacuum-assist Stage II vapor recovery systems are used, the differences in operational design characteristics between ORVR and some configurations of these Stage II vapor recovery systems

Systems – Gasoline Service Stations” (November 1975, EPA Online Publication 450R75102), which is regarded as the control techniques guideline (CTG) for the control of VOC emissions from this source category; and the EPA document “Model Volatile Organic Compound Rules for Reasonably Available Control Technology” (Staff Working Draft, June 1992) contains a model Stage I regulation.

In more recent years, the California Air Resources Board (CARB) has required Stage I vapor recovery systems capable of achieving vapor control efficiencies higher than those achieved by traditional systems. These systems are commonly referred to as Enhanced Vapor Recovery (EVR) systems.

## **II. Summary of Massachusetts’ SIP Revision**

The Massachusetts Stage II vapor recovery program requirements, codified in 310 Code of Massachusetts Regulations (CMR) 7.24(6), *Dispensing of Motor Vehicle Fuel*, were initially approved into the Massachusetts SIP on December 14, 1992 (57 FR 58993). Massachusetts’ rule required gasoline dispensing facilities throughout the state to install Stage II vapor recovery systems.

On May 5, 2015, Massachusetts submitted a SIP revision consisting of its revised 310 CMR 7.24(6), *Dispensing of Motor Vehicle Fuel*. This SIP revision includes regulatory amendments that allow GDFs to decommission their Stage II vapor recovery systems as of January 2, 2015 and requires that all GDFs equipped with Stage II vapor recovery systems, decommission their Stage II vapor recovery systems by January 2, 2017.

---

result in the reduction of overall control system efficiency compared to what could have been achieved relative to the individual control efficiencies of either ORVR or Stage II emissions from the vehicle fuel tank.

A Massachusetts GDF equipped with a Stage II vapor recovery system, and having an annual throughput of less than 500,000 gallons, may apply for an extension to decommission its Stage II vapor recovery system based on financial hardship or extenuating circumstances.

Massachusetts DEP may grant an owner, lessee, operator or controller of a GDF making such request, an extension of up to two years after January 2, 2017. Any GDF receiving such an extension, is then required to continue to operate and maintain its Stage II vapor recovery systems in accordance with Massachusetts' regulations, until the time when such Stage II vapor recovery system is ever decommissioned.

Massachusetts' May 5, 2015 SIP revision also includes amended regulation 310 CMR 7.24(3), *Distribution of Motor Vehicle Fuel*, which includes requirements for GDFs to upgrade their Stage I vapor recovery systems to CARB-certified Stage I EVR systems or a Stage I vapor recovery system composed of EVR system components (Stage I EVR component systems). As of January 2, 2015, a Stage I EVR system or a Stage I EVR component system is required upon facility start-up for facilities beginning operation. Also as of January 2, 2015, any component of a pre-existing Stage I vapor recovery system that is replaced, is required to be replaced with a CARB-certified Stage I EVR component. The Massachusetts regulations further require that all Stage I systems be CARB-certified Stage I EVR systems or Stage I EVR component systems by January 2, 2022 (seven years from the effective date of these amended regulations).

Furthermore, the revised Stage I regulations require GDFs with a monthly throughput of 100,000 gallons or more to maintain Stage I systems that meet the same management practices required by EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Source Category: Gasoline Dispensing Facilities, 40 CFR part 63, subpart CCCCCC.

In addition, Massachusetts' May 5, 2015 SIP revision also includes new and amended definitions in 310 CMR 7.00, *Air Pollution Control*, that relate to Stage I and Stage II vapor recovery systems and includes minor clarifying amendments to 310 CMR 7.24(4), *Motor Vehicle Fuel Tank Trucks*.

The May 5, 2015 SIP revision also includes a narrative demonstration supporting the discontinuation of the Massachusetts Stage II vapor recovery program. This demonstration consists of an analysis that the Stage II vapor recovery controls provide only *de minimis* emission reductions due to the prevalence of ORVR-equipped vehicles.

### **III. EPA's Evaluation of Massachusetts' SIP Revision**

EPA has reviewed Massachusetts revised 310 CMR 7.00, 7.24(3), 7.24(4), and 7.24(6) regulations, as well as the accompanying SIP narrative, and has concluded that Massachusetts' May 5, 2015 SIP revision is consistent with EPA's widespread use rule (77 FR 28772; May 16, 2012) and EPA's "Guidance on Removing Stage II Gasoline Vapor Control Programs from State Implementation Plans and Assessing Comparable Measures" (EPA-457/B-12-001; August 7, 2012), hereafter referred to as EPA's Guidance Document.

Massachusetts' May 5, 2015 SIP revision includes a CAA section 184(b)(2) "comparable measures" demonstration and a CAA section 110(l) anti-back sliding demonstration based on equations in EPA's Guidance Document. According to these calculations, the potential loss of refueling emission reductions from removing Stage II vapor recovery systems in 2013 is 5.12 percent, thus meeting the 10 percent *de minimis* recommendation in EPA's Guidance Document. The fact that the Massachusetts' demonstration is based on 2013, while the regulation allows decommissioning of Stage II systems beginning in 2015, represents a conservative estimate as



the potential loss of emission reductions decreases over time as more and more ORVR systems are phased-in.

In addition, Massachusetts' May 5, 2015 SIP revision also includes calculations illustrating that the overall emissions effect of removing the Stage II vapor recovery program would be an increase of about 463 tons of VOC in 2013. EPA's 2011 National Emissions Inventory database, Version 2, illustrates that Massachusetts' statewide anthropogenic VOC emissions were about 147,213 tons (see [www.epa.gov/ttn/chief/net/2011inventory.html](http://www.epa.gov/ttn/chief/net/2011inventory.html)). Therefore the 463 annual tons of VOC emissions increase calculated by Massachusetts are only about 0.3 percent of the total anthropogenic VOC emissions in Massachusetts. Also, as noted above, these foregone emissions reductions in the near term continue to diminish rapidly over time as ORVR phase-in continues. Thus, EPA believes that the resulting temporary increases in VOC emissions will not interfere with attainment or maintenance of the ozone National Ambient Air Quality Standards (NAAQS).

Furthermore, Appendix Table A-1 of EPA's Guidance Document illustrates that by the end of 2016 (Massachusetts' requires that all GDFs decommission their Stage II vapor recovery systems by January 2, 2017), about 85% of the vehicles in the national motor vehicle fleet will be equipped with ORVR. The number of ORVR-equipped vehicles in Massachusetts will likely be even higher due to Massachusetts having a more accelerated motor vehicle fleet turnover when compared to the national motor vehicle fleet.<sup>2</sup> Appendix Table A-1 of EPA's Guidance Document also illustrates that by the end of 2016, almost 89% of gasoline dispensed nationally

---

<sup>2</sup> *Air Program Support for Stage I and Stage II Programs in Massachusetts Final Report*, Eastern Research Group, Inc. and de la Torre-Klausmeier Consulting, December 12, 2012, includes an analysis of vehicle registration data, from the Massachusetts motor vehicle inspection and maintenance program database, illustrating that 76% of motor vehicles inspected in 2011 throughout Massachusetts had ORVR controls. This is much more accelerated than

will be to ORVR-equipped vehicles, which is also likely to be higher in Massachusetts due to a newer motor vehicle fleet.<sup>3</sup> At that point in time, since a vast majority of Massachusetts vehicles being refueled at gasoline dispensing facilities will be equipped with ORVR systems, the ORVR systems will be controlling the VOC emissions, making Stage II vapor recovery systems a redundant, and potentially incompatible, emissions control technology in Massachusetts. Therefore, removing the Stage II systems is not expected to result in a significant emissions increase, but is expected to avoid emissions increases resulting from the incompatibility of some Stage II systems with ORVR controls.

With respect to Stage I vapor recovery requirements, Massachusetts' revised regulation 310 CMR 7.24(3) is more stringent than the previously approved version of the rule,<sup>4</sup> thus meeting the CAA section 110(l) anti-back sliding requirements. As noted above, the revised rule requires upgrades to a CARB-certified EVR Stage I system or a Stage I system made up of EVR components by January 2, 2022, with an earlier January 2, 2015 compliance date in the case of a new facility or when system components are being replaced. CARB-certified Stage I EVR systems have been certified to achieve a 98 percent reduction in VOC emissions, as compared to 95 percent for pre-EVR Stage I systems. Thus, when pre-EVR Stage I systems in Massachusetts are replaced with CARB-certified Stage I EVR systems, a greater emission reduction will be achieved. Also, when a component of a pre-EVR Stage I systems is replaced with a CARB-certified Stage I EVR component, a somewhat greater reduction is expected to be achieved.

---

EPA's end of 2011 calendar year national estimate of 67.1% of vehicles in the national motor vehicle fleet are equipped with ORVR.

<sup>3</sup> Ibid. In 2013, 84.9% of gasoline dispensed in Massachusetts was dispensed to ORVR-equipped vehicles. This is slightly more accelerated than EPA's end of 2013 calendar year national estimate of 81.0% of fuel dispensed to ORVR-equipped vehicles.

<sup>4</sup> EPA's most recent approval of 310 CMR 7.24(3) was on September 3, 1999 (see 64 FR 48297).

These additional reductions will further mitigate any temporary declining emissions increases, which are already *de minimis*, resulting from removal of Stage II vapor recovery systems.

Finally, we note that the Massachusetts regulation contains the following language: “The provisions and requirements of 310 CMR 7.24(3)(a) and (b) are subject to the enforcement provisions specified in 310 CMR 7.52.” EPA notes that this language, which also appears in other parts of the State’s regulation with respect to enforcement of other specific regulatory provisions, and which EPA is proposing to approve into the Massachusetts SIP, is not intended to, and does not as a matter of law, preclude enforcement of the SIP provisions in question through any other means authorized by federal law, including, but not limited to, the CAA.

#### **IV. Proposed Action**

EPA is proposing to approve Massachusetts’ May 5, 2015 SIP revision. Specifically, EPA is proposing to approve Massachusetts revised regulations 310 CMR 7.24(3), *Distribution of Motor Vehicle Fuel*, 310 CMR 7.24(4), *Motor Vehicle Fuel Tank Trucks*, and 310 CMR 7.24(6), *Dispensing of Motor Vehicle Fuel*, as well as new and revised definitions, in 310 CMR 7.00, *Air Pollution Control*, that relate to Stage I and Stage II vapor recovery systems, and incorporate these regulations into the Massachusetts SIP. EPA is proposing to approve this SIP revision because it meets all applicable requirements of the CAA and EPA guidance, and it will not interfere with any applicable requirement concerning NAAQS attainment and reasonable further progress or with any other applicable requirement of the Clean Air Act.

Massachusetts’ May 5, 2015 SIP revision satisfies the “comparable measures” requirement of CAA section 184(b)(2), because as stated in EPA’s Guidance Document, “the comparable measures requirement is satisfied if phasing out a Stage II control program in a

particular area is estimated to have no, or a *de minimis*, incremental loss of area-wide emissions control.” As noted above, Massachusetts’ SIP revision met *de minimis* criteria outlined in EPA’s Guidance Document. In addition, since the resulting temporary emissions increase from the removal of Stage II controls are *de minimis*, the anti-back sliding requirements of CAA section 110(l) have also been satisfied.

EPA is soliciting public comments on the issues discussed in this document or on other relevant matters. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to this proposed rule by following the instructions listed in the **ADDRESSES** section of this **Federal Register**.

## **V. Incorporation by Reference**

In this rule, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference Massachusetts’ 310 CMR 7.00, Air Pollution Control: Definitions; 310 CMR 7.24(3), Distribution of Motor Vehicle Fuel; 310 CMR 7.24(4), Motor Vehicle Fuel Tank Trucks; and 310 CMR 7.24(6) Dispensing of Motor Vehicle Fuel. The EPA has made, and will continue to make, these documents generally available electronically through <http://www.regulations.gov> and at the appropriate EPA office (see the **ADDRESSES** section of this preamble for more information).

## **VI. Statutory and Executive Order Reviews**

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or and Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: February 19, 2016.

Deborah A. Szaro,  
Acting Regional Administrator,  
EPA New England.

[FR Doc. 2016-05027 Filed: 3/8/2016 8:45 am; Publication Date: 3/9/2016]